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EXAMINER

GARCIA, GABRIEL I

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/981,117
Filing Date: October 17, 2001
Appellant(s): Haines et al.

MAILED

AUG 28 2006

Technology Center 2600

James D. Shaurette
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on 6/7/06 appealing from the Office
action mailed on 1/12/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct. Except for the detail as follows:

Appeal brief does not identify claim 12 as being allowed.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct, except for the rejections and objection withdrawn below.

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The 103 rejection of claims 6-8 have been withdrawn; the rejection under 35 U.S.C. 112 of claims 21-22 have been withdrawn; and the objection to the title has been withdrawn.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The follow ground(s) of rejection are applicable to the appealed claims:

1. Claims 1 - 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski et al. (US 2002/0015066) and Kawabata et al. (US 5905925).

Regarding claim 1, Siwinski teaches an image forming device (10) comprising:
a housing (The housing of printer 10, Fig. 1) including a media path arranged to guide media (media 24 (p 33) is guided from tray 20 to imaging drum 26 for printing (p 37));

a first sensor (50 with antenna 5611, Fig. 2) configured to obtain encoded data from the media (data of media characteristic (type of media or other info, p 49) is sensed from transponder (54h) on receiver media; abstract lines 2-4, Fig. 2; p 12; p 19 teaches other encoded data that can be obtained; TABLE 3 (page 6)) and to output a first signal indicative of the encoded data (Fig. 2 shows antenna 56h outputting data through 58h and sensor 50 to processor 32);

imaging circuitry (32 Fig. 2) configured to form hard images upon the media (Figs. 1 and 2 show the printer that processor 32 controls to print), to receive the signal (signal sent along transmission paths shown in Fig. 2 from transceivers 50 to processor 32) and to perform at least one function with respect to the formation of the hard images within the image forming device responsive to the encoded data indicated within the signal (p 15, p 63).

Siwinski does not specifically teach a second ambient condition sensor or printing based on the signal therefrom.

Kawabata teaches a second sensor (e.g. 27, 28 Fig. 2, see also Fig. 5) configured to monitor an ambient condition (temperature, humidity) within an

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environment in which the image forming device is deployed (Fig. 5 describes the conditions as environment conditions) and to output a second signal indicative of the ambient condition (in order to correcting conditions for printing in col. 11, lines 1-4 a signal must be sent from sensors 27, 28 to 23 via lines shown in Fig. 2) and adjusting the formation of hard images responsive to the signal of the second sensor (based on the ambient conditions, the output voltage changes on the printing device, see Fig. 5 - control means 23 is the imaging circuitry, col. 11 lines 1-21)

Kawabata teaches using not only the media type, but also the ambient conditions to most correctly print out a print job (3B, e.g. col. 1 lines 7-13, col. 2 lines 64-65, see further throughout). Thus based on this clear motivation taught in the art it would have been obvious to one of ordinary skill in the art to include the second sensor functions of Kawabata in the media type detecting and printing system of Siwinski.

Regarding claim 2, which depends from claim 1, Siwinski teaches the first sensor is configured to obtain the encoded data from the media comprising a plurality of discrete sheets (24, Fig. 2, p 56).

Regarding claim 3, which depends from claim 1, Siwinski teaches the imaging circuitry is configured to form the hard images upon the media according to an imaging parameter and to perform the at least one function comprising adjusting the imaging parameter (p 4, wherein adjusting printer functions based on imaging parameters is specifically suggested by Siwinski; p 63). Kawabata also teaches imaging parameters in col. 11 lines 1-21, Fig. 4, col. 10 lines 23-15).

Regarding claim 4, which depends from claim 3, Kawabata teaches the imaging

circuitry is configured to adjust the imaging parameter responsive to the second signal from the second sensor (col. 11 lines 1-21).

Regarding claim 5, which depends from claim 3, while Siwinski teaches running a stored program controlling printing that uses saved initial variables (p 63 - initial settings placed into storage when a media type first loaded (p 64)), Siwinski does not specifically teach an interface configured to receive updated settings and wherein the storage circuitry is configured to store the updated settings to replace the initial settings.

Kawabata teaches an interface (Fig. 3B) configured to receive updated settings (characteristic input in the lower right is a button to select to update the settings for any of the media types) and wherein the storage circuitry is configured to store the updated settings to replace the initial settings (col. 3 lines 10-20, col. 9 lines 50-51, col. 9 line 66 - col. 1 line 2, col. 10 lines 40-42).

It would have been obvious to one of ordinary skill in the art to allow the user to update imaging parameters for different media types in the system of Siwinski. The motivation for doing so would have been to have the most precise up-to-date imaging parameters. Since many factors and conditions can change in media, printers, and printer elements, if any of these change significantly for any reason, it might be appropriate to adjust imaging parameters to keep the output of the printer optimal. Further, Siwinski teaches that data can be written onto media as encoded data (p 17) and that if the media is taken to another device, the new updated settings could go with it (p 22). This would be another advantage of updating the printing characteristics of the type of media.

Regarding claim 11 , which depends from claim 1, Siwinski teaches the imaging circuitry is configured to print hard images upon media (p 1, p 37).

2. Claims 6, 7, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski as applied to claims 1 and 13 above, and further in view of Matthews et al. (US 2002/0097422).

Regarding claim 6, which depends from claim 1, while Siwinski teaches displaying printer messages (p 37, specifically discussed are maintenance and error messages) to control console 30 through the interface (see line in Fig. 2 between 30 and 32) external of the printer, Siwinski does not specifically teach that the message identifies the media. Matthews teaches sending an error message to a user identifying the media that is causing troubles (Fig. 2,. p 22).

It would have been obvious to one of ordinary skill in the art that one of the error type messages in the system of Siwinski could have been identifying which media is causing jams as shown in Matthews. The motivation for doing so would have been to prevent errors that are caused by that specific media.

Regarding claim 7, which depends from claim 6, the combination of Siwinski (teaches type) and Matthews (teaches brand) could display both in the error message.

Regarding claim 10, which depends from claim 1, while Siwinski teaches a media supply (tray 20) that can have the receiving transceiver antenna 5611 on it (p 38, 15) and media that individually has encoded data (Fig. 2, 24), Siwinski does not specifically teach that there are multiple trays with multiple sensor antennas.

Matthews teaches a printer with multiple trays (p 14) that supply different types of media to the printer.

It would have been obvious to one of ordinary skill in the art that multiple trays would be beneficial in the system of Siwinski in order to provide different types of media at the same time. Thus, a user would not have to switch out types of media when they want to use a different type. Further, sensing information including media type is an object of Siwinski, so in a system with multiple trays and media types, it would be obvious to have an additional sensor in each tray to report to the system what type of media is being printed on.

3. . Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski and Matthews as applied to claims 6 and 1 above, and further in view of Arima (US 6714744).

Regarding claim 8, which depends from claim 6, while Siwinski teaches monitoring usage of consumables including print media and notifying a user of errors, Siwinski does not specifically teach the notification to be an order to assist with replenishment of the media. However, Arima teaches notifying a user when a media consumable has run out or is low for the user to place an order for more to replenish the supply (Figs. 4, 5, 9, 16).

It would have been obvious to one of ordinary skill in the art to send the user a message to order more of a media consumable that has run out or is running low in

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order to provide for prevention of time when the printer cannot be used because the supplies are out.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski as applied to claim 1 above, and further in view of Matsuno et al. (US 6069641).

Regarding claim 9, which depends from claim 1, Siwinski teaches the idea that if a consumable is not compatible for some reason to temporarily disable printer operations (p 24).

Siwinski does not specifically teach the prevention of printing is one of the functions related to the encoded data read by the sensor (type of media for example).

However, Matsuno teaches that some printing systems or tasks require specific types of media and preventing use of the wrong type of media (col. 3 lines 42-48) and stopping the recording of information onto the media in response.

It would have been obvious to one of ordinary skill in the art to prevent imaging on types of media that would be detrimental to a task in order to produce optimal print results. Thus in the combined system, the detected media type could be used to make sure that the media is the correct media for the current printer or task.

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski and Kawabata as applied to claim 1 above, and further in view of Gonnella, Jr. et al. (US 6577825).

Regarding claim 21, which depends from claim 1, the combination of Siwinski and

Kawabata do not specifically teach the second sensor to be monitoring an ambient condition external of the housing.

However, Gonnella teaches that a sensor can be used to detect an ambient condition external of the housing and use the signal from the sensor with respect to the formation of images (abstract, steps 254-258, col. 2 lines 26-40, col. 4 line 57 - col. 5 line 7, wherein the environmental sensor senses a user outside of the device in order to initiate a warm-up function).

It would have been obvious to one of ordinary skill in the art to include an environmental sensor such as that of Gonnella in the combination of Siwinski and Kawabata. The motivations for doing so would have been to provide an elective and useful stand-by/wake-up feature for the device to save power and also warm up promptly when a user wants to use the device.

6. Claims 13 - 15, 19, 20, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski in view of Matthews.

Regarding claims 13 and 19 . Siwinski teaches a method of forming hard images comprising: moving media along a media path of an image forming device (media 24 (p 33) is guided from tray 20 to imaging drum 26 for printing (p 37)),
forming hard images upon the media using the image forming device (p 15, p 63 - Figs. 1 and 2 show the printer that processor 32 controls to print); retrieving encoded data from the media using the image forming device (data of media characteristic (type of media or other info, p 49) is sensed from transponder (5411) on receiver media;

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abstract, lines 2-4, Fig. 2, p 12, p 19 teaches other encoded data that can be obtained', TABLE 3 (page 6) - Fig. 2 shows antenna 56h outputting data through 58 and sensor 50 to processor 32 - received along transmission paths shown in Fig. 2)9 performing at least one function with respect to the media using the image forming device responsive to the encoded data (one function e.g. p 15, p 63).

While Siwinski teaches displaying printer messages (p 37, specifically discussed are maintenance and error messages) to control console 30 through the interface (see line in Fig. 2 between 30 and 32) external of the printer, Siwinski does not specifically teach that the message identifies the media.

Matthews teaches sending an error message to a user identifying the media that is causing troubles (Fig. 2, p 22).

It would have been obvious to one of ordinary skill in the art that one of the error type messages in the system of Siwinski could have been identifying which media is causing jams as shown in Matthews. The motivation for doing so would have been to prevent errors that are caused by that specific media.

Regarding claims 14, 15, and 20, which depend from claim 13, Siwinski teaches the limitations of claims 14, 15, and 20 as discussed in the rejection of claims 2, 3, and 11, respectively.

Regarding claim 23, which depends from claim 13, since Siwinski teaches automatically displaying error and maintenance messages (p37), the combination thus can automatically communicate error messages without user input.

7. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski and Matthews as applied to claims 13 and 15 above, and further in view of Kawabata.

Regarding claim 16, which depends from claim 15, Siwinski does not specifically teach a second ambient condition sensor or printing based on the signal therefrom.

Kawabata teaches a second sensor (e.g. 27, 28 Fig. 2, see also Fig. 5) configured to monitor an ambient condition (temperature, humidity) within an environment in which the image forming device is deployed (Fig. 5 describes the conditions as environment conditions) and to output a second signal indicative of the ambient condition (in order to correct conditions for printing in col. 11 lines 1-4 a signal must be sent from sensors 27, 28 to 23 via lines shown in Fig. 2) and adjusting the formation of hard images responsive to the signal of the second sensor (based on the ambient conditions, the output voltage changes on the printing device, see Fig. 5 -control means 23 is the imaging circuitry, col. 11 lines 1-21).

Kawabata teaches using not only the media type, but also the ambient conditions to most correctly print out a print job (3B, e.g. col. 1 lines 7-13, col. 2 lines 64-65, see further throughout). Thus based on this clear motivation taught in the m it would have been obvious to one of ordinary skill in the art to include the second sensor functions of Kawabata in the media type detecting and printing system of Siwinski.

Regarding claim 17, which depends from claim 15, while Siwinski teaches running a stored program controlling printing that uses saved initial variables (p 63 - initial settings placed into storage when a media type first loaded (p 64)), Siwinski does not specifically

teach an interface configured to receive updated settings and wherein the storage circuitry is configured to store the updated settings to replace the initial settings.

Kawabata teaches an interface (Fig. 3B) configured to receive updated settings (characteristic input in the lower right is a button to select to update the settings for any of the media types) and wherein the storage circuitry is configured to store the updated settings to replace the initial settings (col. 3 lines 10-20, col. 9 lines 50-51, col. 9 line 66 - col. 1 line 2, col. 10 lines 40-42).

It would have been obvious to one of ordinary skill in the art to allow the user to update imaging parameters for different media types in the system of Siwinski. The motivation for doing so would have been to have the most precise up-to-date imaging parameters. Since many factors and conditions can change in media, printers, and printer elements, if any of these change significantly for any reason, it might be appropriate to adjust imaging parameters to keep the output of the printer optimal. Further, Siwinski teaches that data can be written onto media as encoded data (p 17) and that if the media is taken to another device, the new updated settings could go with it (p 22). This would be another advantage of updating the printing characteristics of the type of media.

8. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Siwinski and Matthews as applied to claim 13 above, and further in view of Gonnella.

Regarding claim 22, which depends from claim 13, the combination of Siwinski and Matthews do not specifically teach another sensor to be monitoring an ambient condition external of the housing.

However, Gonnella teaches that a sensor can be used to detect an ambient condition external of the housing and use the signal from the sensor with respect to the media (abstract, steps 254-258, col. 2 lines 26-40, col. 4 line 57 - col. 5 line 7, wherein the environmental sensor senses a user outside of the device in order to initiate a warm-up function - also wherein in the wake-up process, sensor 116 (col. 5 lines 26-45) is one of the items woken up responsive to the monitoring and the sensor operates with respect to the media in the paper feeder).

It would have been obvious to one of ordinary skill in the art to include an environmental sensor such as that of Gonnella in the combination of Siwinski and Kawabata. The motivations for doing so would have been to provide an effective and useful stand-by/wake-up feature for the device to save power and also warm up promptly when a user wants to use the device.

9. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

(10) Response to Argument

With regard to applicant's argument labeled item A, examiner has withdrawn the rejection of claims 21 and 22 under 35 U.S.C. 112. Applicant's argument has being

found to be persuasive, claims 21 and 22 comply with the written description requirement and do not introduce new matter.

With regard to Applicant's argument(s) labeled item B that there is insufficient motivation to combine the prior art teachings of kawabata with the teachings of Siwinski and the 103 rejection of claims 1-5, 11 and 22 is improper. Examiner does not agree with Applicant's conclusions, and maintain that rejection of claims 1-5, 11 and 21 is proper. Examiner asserts that the rejection it is not merely identifying the limitations, Examiner asserts that the 103 rejection provides a motivation to combine the cited references.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or **motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill** in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Siwinski was cited to teach an image forming device (10) comprising: a housing, a first sensor, and imaging circuitry (see details above), and Kawabata was cited to teach a second sensor (e.g. 27, 28 Fig. 2, see also Fig. 5) configured to monitor an ambient condition (temperature, humidity) within an environment in which the image forming device is deployed (Fig. 5 describes the conditions as environment conditions) and to output a

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second signal indicative of the ambient condition (in order to correct conditions for printing in col. 11, lines 1-4 a signal must be sent from sensors 27, 28 to 23 via lines shown in Fig. 2) and **adjusting the formation of hard images responsive to the signal of the second sensor** (based on the ambient conditions, the output voltage changes on the printing device, see Fig. 5 - control means 23 is the imaging circuitry, col. 11 lines 1-21), and Kawabata was indicated to teach using not only the media type, but also the ambient conditions to most correctly print out a print job (3B, e.g. col. 1 lines 7-13, col. 2 lines 64-65, see further throughout). Thus based on this clear motivation taught in the art it would have been obvious to one of ordinary skill in the art to include the second sensor functions of Kawabata in the media type detecting and printing system of Siwinski. Clearly the motivation to use the second sensor of Kawabata with the apparatus as taught by Siwinski, was to use the ambient condition as taught by Kawabata in order to allow the system of Siwinski to **consider the printing condition such as ambient condition to most correctly printing out a print job**, giving consideration to the ambient condition such as temperature when printing an output image, it is well known in the art of printing to consider this condition(s) in order to correct irregularities caused by the ambient conditions. Clearly Kawabata suggests in col. 11, lines 1-39 that by considering the ambient condition to the formation of images can improve and corrects the conditions related to the temperature or humidity of the image forming device, therefore, by adding this second sensor to the system of Siwinski will help the system **to adjust and improve the printing of images** under not so perfect conditions such as high temperature.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper unsupported and conclusory hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Clearly Siwinski teaches that it is well known in the art to provide a second sensor in order to improve and adjust the printer's condition (see (col. 11, lines 1-39).

With regard to Applicant's argument(s) labeled item C that there is insufficient motivation to combine the prior art teachings of Matthews with the teachings of Siwinski. Examiner agrees with Applicant's argument(s) that the combination fails to teach the limitations of claims 6-8. Claims 6-8 are objected. Applicant's arguments are drawn only to the features of claims 6-8. Subject matter related to other claims (besides claims 6-8) has not been argued.

In response to applicant's arguments labeled item D that there is no teachings in Swinski that any messages are communicated responsive to encoded data retrieved from media, arguments against the Siwinski reference individually, cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the message identifying the media to a host device using the image forming responsive to the encoded data **responsive to the encoded data**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Claim 13 is simply indicating that function comprises communicating a message identifying the media to a host device. It was cited that the combination of Siwinski and Matthews teach the features of claim 13. Siwinski was cited to teach a method of forming hard images comprising: moving media along a media path of an image forming device (media 24 (p 33) is guided from tray 20 to imaging drum 26 for printing (p 37)), forming hard images upon the media using the image forming device (p 15, p 63 -Figs. 1 and 2 show the printer that processor 32 controls to print); retrieving encoded data from the media using the image forming device (data of media characteristic (type of media or other info, p 49) is sensed from transponder (5411) on receiver media; abstract, lines 2-4,. Fig. 2,. p 12., p 19 teaches other encoded data that can be obtained', TABLE 3 (page 6) - Fig. 2 shows antenna 56h outputting data through 58 and sensor 50 to processor 32 - received along transmission paths shown in Fig. 2) performing at least one function with respect to the media using the image forming device responsive to the encoded data (one function e.g. p 15, p 63). While Siwinski teaches displaying printer messages (p 37, specifically discussed are maintenance and error messages) to control console 30 through the

interface (see line in Fig. 2 between 30 and 32) external of the printer, Siwinski does not specifically teach that the message identifies the media. Matthews teaches sending an error message to a user identifying the media that is causing troubles (Fig. 2, p 22).

It would have been obvious to one of ordinary skill in the art that one of the error type messages in the system of Siwinski could have been identifying which media is causing jams as shown in Matthews. The motivation for doing so would have been to prevent errors that are caused by that specific media.

With regard to Applicant's argument(s) labeled items E and F, Examiner has found applicant's argument to be persuasive. Examiner agrees with Applicant's argument(s) that the combination fails to teach the limitations of claims 7 and 8. Claims 7 and 8 are being objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

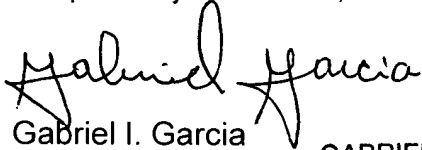
With regard to Applicant's argument(s) labeled item H, Examiner asserts that Siwinski teaches automatically communicating without user input, (p37), clearly the system information the host computer with errors that are detected without the need for user intervention.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Gabriel I. Garcia

GABRIEL I. GARCIA
PRIMARY EXAMINER

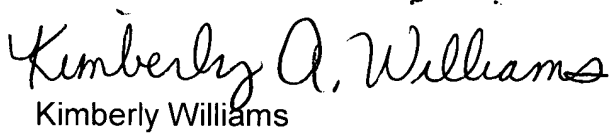
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